

Montgomery Planning Aspen Hill Vision Zero Study

Community Meeting February 26, 2019 Harmony Hills Elementary School





Overview

• What is Vision Zero?

- Aspen Hill Vision Zero Study
- Data Collection and Analysis
- Infrastructure Improvements

Aspen Hill Vision Zero Advisory Group

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What is Vision Zero?

 In Montgomery County, an annual average of 27 fatalities and 240 severe injuries between 2015-2018.

In the United States, it is a response to the approximately 40,000 traffic fatalities annually



OUR PLAN TO ELIMINATE FATALITIES AND SEVERE INJURIES ON OUR ROADS BY 2030

Aspen Hill Vision Zero Advisory Group

TWO-YEAR ACTION PLAN • NOV 2017



What is Vision Zero?

- Traffic deaths are preventable
- Human error is inevitable
- Prevent fatal and severe crashes
- Human life prioritized over mobility
- Systems approach to safety





Decreasing Crash Frequency

- Decrease the number of conflicts
 - Designate space for different users
 - Provide predictability where users interact







ASPE Decreasing Crash Severity JZERO **STUDY**



Image Credit: World Resources Institute



Aspen Hill Vision Zero Study Boundary



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Road Classification Table

			Posted				
Road	From	То	Limit	Lanes	Classification	ROW	Road Ownership
	Matthew						
Connecticut	Henson	Georgia Ave	45 mph	6	Major Highway	150 ft	State
Connecticut	Georgia Ave	Bel Pre	40 mph	4	Arterial	80 ft	County
	Matthew						
Georgia	Henson	Connecticut	45 mph	6	Major Highway	150 ft	State
Georgia	Connecticut	Bel Pre	50 mph	6	Major Highway	150 ft	State
Aspen Hill Road	Georgia Ave	Grenoble	30 mph	4	Arterial	80 ft	County
Aspen Hill Road	Grenoble	Parkland	30 mph	2	Arterial	80 ft	County
Independence St	Connecticut	Parkland	25 mph	2	Residential Primary	70 ft	County
	Matthew						
Parkland	Henson	Aspen Hill	25 mph	2	Residential Primary	70 ft	County
Bel Pre	Connecticut	Georgia Ave	35 mph	4	Arterial	80 ft	County
Grand Pre	Bel Pre	Georgia Ave	30 mph	2	Residential Primary	70 ft	County











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MC ReactMap





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MC ReactMap

The Aspen Hill Club Peppertree Farm Gate of Heaven Cemetery The Home Depot

"It is very dangerous to walk to the nearby commercial establishments such as the Aspen Hill Shopping Center because of the narrow sidewalks and high speed limits...."

"The sidewalks are not protective of pedestrians. They are too narrow and too close to the road."

"There are too many driveways at the gas station [on the corner of Aspen Hill Road and Connecticut Avenue]. Makes it uncomfortable and unsafe for pedestrians."

"...Cars are so close to pedestrians as they walk to the shopping center. Widening these sidewalks is a matter of pedestrian safety."

"The driveway to home depot is crazy. I've see a few fender benders. Lots of people cross the Georgia near home depot. It's terrifying to watch."

Pedestrian Level of Comfort JZERO STUDY



- Good residential sidewalk network
- Low speed neighborhood streets
- High speed roadways lack buffers between
 - travel lanes and sidewalks
- Major intersections lack pedestrian refuges
- Several unmarked crosswalks at intersections
- Several unsignalized crossings



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Georgia Avenue between Bel Pre Road and Heathfield Road

Georgia Avenue between Heathfield Road and Connecticut Avenue

Georgia Avenue between Connecticut Avenue and Aspen Hill Road

Georgia Avenue between Aspen Hill Road and Hewitt Avenue

Connecticut Avenue between Bel Pre Road and Grand Pre Road

Connecticut Avenue between Grand Pre Road and Georgia Avenue

Connecticut Avenue between Georgia Avenue and Aspen Hill Road

Connecticut Avenue between Aspen Hill Road and Independence Street

Aspen Hill Road between Connecticut Avenue and Georgia Avenue

Percentage of cars exceeding the Speed limit on Aspen Hil Road **Between Georgia Ave and Connecticut Ave**



				EB vs WB				
85 th Percentile Speeds (mph)	EB	WB	Combined	Speeds				
AM Off-Peak Average Speed	31	30	31	1				
AM Peak Average Speed	34	33	33	2				
Difference	-3	-3	-9					
PM Off-Peak Average Speed	29	30	29	1				
PM Peak Average Speed	29	28	29	1				
Difference	0	2	1					
48-Hour Average	31	30	31	1				
Results: The speed differentials are less than five miles per hour. The								
average 85th-percentile speed is 31 mph compared to the 30-mph posted								
speed limit.								



- 1. Connecticut Ave and Bel Pre Road 2. Connecticut Ave and Georgia Ave 3. Connecticut Ave and Aspen Hill Road 4. Connecticut Ave and independence Street 5. Georgia Ave and Bel Pre Road 6. Georgia Ave and Aspen Hill Road 7. Georgia Ave and Hewitt Ave 8. Parkland Drive and Aspen Hill Road 9. Georgia Ave and Heathfield Road 10. Georgia Ave and Home Depot Driveway 11. Georgia Ave and Northgate Plaza 12. Grand Pre Road and Tynewick Dr 13. Grand Pre Rd and Connecticut Ave 14. Connecticut Ave and Home Depot Driveway 15 Connecticut Ave and Aspen Hill Shopping Center
- 16. Aspen Hill Rd and Northgate Plaza

Pedestrians Crossings

Between 6 AM and 7 PM







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Aspen Hill Crashes (2015 – 2019)

- Pedestrian (Severe)
- Bicyclist (Severe)
- Motor Vehicle Occupant (Severe)
 - 💎 Pedestrian (Fatal)
- ×

- Bicyclist (Fatal)
- Motor Vehicle Occupant (Fatal)



Aspen Hill Crashes Analysis

- Highest Crash signalized intersections
- Highest Crash Road Segments (between signalized intersections)
- Most severe and fatal crashes
- Differences between night and day crashes





August 2018 – March 2019 Community Engagement

September 2018 – February 2019 Data Collection and Analysis



July – September 2019 Planning Board Review

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Role of the Planning Department

What We Do:

- Master Planning
- Regulatory Review
- Capital Improvement Plan Review
- Advocate and agent of change
- Collaborate with Agency Partners

What We Don't Do:

- Construct Roads, Sidewalks or Bikeways
- Install Traffic Signals or Crosswalks
- Enforce Traffic Laws





The following are examples of various infrastructure improvements that have a demonstrated impact on safety. Projects like theses have been implemented in Montgomery County, the Washington Region, and throughout the Country. This is not a comprehensive list of all possible safety improvements or future recommendations for the Aspen Hill area.

With these examples are listed the objective, the advantages and challengers of each type of infrastructure improvement. The list of challenges and advantages is not comprehensive. Not all examples are appropriate for all types of roadways.

These are examples only for reference only. No recommendations have been made as part of the Study process at this time.

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Objective: Provides designated space for each road user.

Advantage: Road users should know where they belong. Conflict points with other modes are in predictable, regulated locations such as designated crossings or intersections

Challenge: May be costly. May require more right of way. Functions best with other traffic calming measures

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Project types:

- Bike lanes
- Sidewalks
- Pedestrian refuges

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Pedestrian Refuge or Island



Objective: Reduces the exposure time experienced by a pedestrian in the intersection.

Advantage: Provides space for pedestrians to wait if they cannot cross in the time provided. Especially helpful for vulnerable, slower pedestrians

Challenge median.

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Challenge: May encourage more pedestrians to wait in

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Objective: Reduce the rate of vehicular speed on our roadways

Advantage: Road users should know where they belong. Conflict points with other modes are in predictable, regulated locations such as designated crossings or intersections

Challenge: May be costly. May require more right of way. Functions best with other traffic calming measures

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Objective: Visually and physically narrow the roadway to slow speeds and reduce crossing distances.

Advantage: Creates safer and shorter crossings for pedestrians. Increases the available space for street furniture, benches, plantings, stormwater management and street trees. Increases visibility of pedestrians. Reduces turning speeds.

Challenge: May reduce on-street parking. May adversely affect truck movement.

Extend the sidewalk or curb line out into the parking or travel lane, which reduces the effective street width.

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Speed bumps and tables



Objective: Slow vehicle speed.

Advantage: Slow vehicles and make pedestrians more visible at uncontrolled crossings.

Challenge: Should not be placed on streets wider than 60 feet. May create additional maintenance costs.

Raised midblock traffic calming devices that reduce vehicle traffic speed.

ASPEN HILL VISIONZERO * * * * STUDY Re-striping (narrowing) traffic lanes



Objective: Reduce speeds, increase safety, and redistribute space to other users.

Advantage: Redistributes space, creating opportunities for new infrastructure. Slows traffic, improving safety for all road users.

Challenge: Consider large vehicles such as trucks, emergency vehicles, and buses. May encourage traffic to divert to other local streets

Repaint the traffic lanes to make them narrower.

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Automated Speed Enforcement



Objective: To enforce speed limits without law enforcement officers present by ticketing drivers

Advantage: Situational compliance if a driver knows a speed camera is present. May increase compliance in areas where there is no camera present due to concern that one is present.

Challenge: Drivers may only comply in areas where they know a camera to be present.

Relies on fixed or mobile cameras and other equipment to detect and capture images of vehicles traveling at speeds at least 11 miles per hour above the posted speed limit

ASPEN HILL VISIONZERO X & M STUDY Controlled Crossings



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Objective: Provides designated crossing times for pedestrians and bicyclists

Advantage: Frequent controlled crossings may reduce crossings at other locations.

Challenge: May result in changes to cycle lengths and additional delay to vehicles at some locations. Pedestrians may not push buttons to request pedestrian light.

Leading Pedestrian Interval



NACTO Urban Street Design Guide

ASPEN HILL

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STUDY

3-7 seconds of walk signal given to pedestrians prior to the traffic light turning green for vehicles.

Objective: give pedestrians time to enter the enter section before turning vehicles enter

Advantage: Increase visibility of crossing pedestrians to motorists and provide better view of traffic. Helpful for vulnerable, slower moving pedestrians. Relatively low cost compared to other counter measures. Challenge: Reduces vehicle capacity. Does not prevent turns on red.



NZERO **STUDY**

No Right Turn on Red



Objective: To reduce conflicts by prohibiting vehicles from turning on red.

Advantage: Situational compliance if a driver knows a speed camera is present. May increase compliance in areas where there is no camera present due to concern that one is present.

Challenge: Drivers may only comply in areas where they know a camera to be present.



Reduce curb radii



Reducing the size of a corner radius. Curb radius can often be reduced without affecting the effective turn radius.

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Objective: shorten crossing distances for pedestrians. Allows for better pedestrian ramp alignment and reduce vehicle speeds during turning movements.

Advantage: Reduces speed of turning vehicles, which may reduce crashes and crash severity. Increases visibility of pedestrians and motorists. Requires less ROW.

Challenge: Possible issues for larger vehicles, will need to determine the effects on trucks.

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Remove channelized turn lanes



Objective: To reduce intersection complexity and remove an unimpeded vehicle movement that creates high vehicle turning speeds.

Advantage: Removes uncontrolled crossing, allowing pedestrians to cross. Slows right vehicle turns.

Challenge: Possible issues for larger vehicles. Increased pedestrian clearances may increase pedestrian and vehicle delay. May increase vehicle delay even if right turn lane maintained

Reconfiguring intersection geometry by removing channelized right turn lanes.

ASPEN HILL VISIONZERO STUDY Pedestrian Intersection Lighting





Lighting features specifically geared for pedestrians. Pedestrian lighting characteristics include: brighter or colored lighting over marked crosswalks and sidewalks as well as lighting at a lower height than street lighting (less than 25 feet).

Objective: Increase pedestrian visibility and safety, specifically during dark hours.

Advantage: Reduces nighttime crashes by increasing visibility of pedestrians.

Challenge: Can be challenging to meet pedestrian thresholds to install lighting.

Credit Michele Weibart http://pedbikesafe.org/PEDSAFE/cm_images/LigIII2.jpg

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Street trees and landscaping





Objective: Visually and physically narrow the roadway to slow speeds and reduce crossing distances.

Advantage: Creates safer and shorter crossings for pedestrians. Increases the available space for street furniture, benches, plantings, stormwater management and street trees. Increases visibility of pedestrians. Reduces turning speeds.

Challenge: May reduce on-street parking. May adversely affect truck movement.



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